AMENDMENTS TO THE CLAIMS

1. (original) Method for deadlock free altering of a network routing from a first routing function R_{old}, defining an established connection between a plurality of communication input ports $I_1,...,I_n$ and output ports $O_1,...,O_m$, in a network element, to a second routing function R_{new}, defining an new connection between the said input and output ports, for execution by the network element for transmitting and receiving data packets, said method comprising:

(1) for each input port I_i, performing the following steps:

(1a) applying the first routing function R_{old} for the input port,

(1b) receiving a token on an input port I_i,

(1c) applying the second routing function R_{new} for the input port I_i ,

(1d) forwarding data packets to every output port O_j associated with the input port I_i according to the second routing function R_{new}, provided that the output port O_j has transmitted the token,

(2) for each output port O_j, performing the following steps;

(2a) determining if the token has been received on all input ports associated with the output port O_j according to the first routing function R_{old},

(2b) transmitting the token on the output port O_j when the token has been received on all said input ports.

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2. (original) Method according to claim 1, wherein the network element is a switch.

3. (original) Method according to claim 1 or 2, wherein the token is included in a data packet.

4. (currently amended) Method according to ~~one of the claims 1-3~~ claim 1, wherein the method is applied to deterministic routing functions.

5. (currently amended) Method according to ~~one of the claims, 1-4~~ claim 1, wherein the method is applied to adaptive routing functions.

6. (currently amended) Method according to ~~one of the claims 1-5~~ claim 1, wherein the method is applied to source routing.

7. (original) Method according to claim 5, wherein if the adaptive method gives rise to a cyclic dependency graph, the graph is pruned into a non-cyclic one before the method is applied.

8. (currently amended) Method according to ~~one of the claims 1 - 7~~ claim 1, wherein the method is applied to only parts of a complete network.

9. (currently amended) Network element, comprising

a plurality of output ports for transmitting data packets to other network elements in a network,

a plurality of input ports for receiving data packets from other network elements in the network,

a processing device,

a memory ,

characterized in that the processing device is arranged to perform a method according to ~~one of the claims 1 - 8~~ claim 1.

10. (original) Network element according to claim 9, wherein said routing functions are implemented as tables stored in said memory.

11. (original) Network element according to one of the claims 9 or 10, wherein said memory comprises computer program instructions arranged to perform said method when executed by said processing device.

12. (original) Computer network system, comprising a number of network elements according to claim 9.

13. (currently amended) Computer program, embodied on a storage medium or in a memory, or carried by a propagated signal, for execution by a processing device in a network element,

characterized in that the program comprises a set of instructions arranged to perform a method according to ~~one of the claims 1-8~~ claim 1 when executed by the processing device in the network element.